

**What is claimed is:**

1. An oligonucleotide for genus-specific genotyping of *Mycoplasma* and *Ureaplasma* strains, comprising any one sequence selected from  
5 SEQ ID Nos. 7 to 21 or its complementary sequence.

2. An oligonucleotide for species-specific genotyping of *Mycoplasma* and *Ureaplasma* strains, comprising any one sequence  
10 selected from SEQ ID Nos. 28 to 127 or its complementary sequence.

3. An oligonucleotide for genus-specific genotyping of *Acholeplasma* strains, comprising any one sequence selected from SEQ  
ID Nos. 22 to 27 or its complementary sequence.

15 4. An oligonucleotide for species-specific genotyping of *Acholeplasma* strains, comprising any one sequence selected from SEQ  
ID Nos. 128 to 133 or its complementary sequence.

20 5. A microarray comprising more than one oligonucleotide selected  
from genus-specific and species-specific oligonucleotides for genotyping  
*Mycoplasma*, *Acholeplasma* and *Ureaplasma* strains according to any  
one from claims 1 to 4 as probes attached on a support.

25 6. The microarray according to claim 5, wherein the probes are any  
one selected from a group consisting of DNA, RNA, PNA, LNA and HNA.

7. The microarray according to claim 5, wherein the support is any  
one selected from a group consisting of slide glass, plastic, membrane,  
semiconductive chip, silicon and gel.

30 8. A method for detecting *Mycoplasma* strains, comprising the

following steps:

- a) extracting nucleic acids from a sample;
  - b) amplifying target DNA among the extracted nucleic acids;
  - c) hybridizing the amplified target DNA with probes of a microarray
- 5 according to claim 5; and
- d) detecting signals generated from the hybridization reaction.

9. A kit for diagnosing *Mycoplasma* infection, comprising more than one oligonucleotide selected from genus-specific and species-specific
- 10 oligonucleotides for genotyping *Acholeplasma*, *Mycoplasma* and *Ureaplasma* strains according to any one from claims 1 to 4.